

1963

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1913

HAZEL NAYUKOK

Meade River

Alaska

Joe AHKPIK

6/26/63. [2 persons]

Taxi - Bronxville -

Idlewild - \$11.00

tip $\frac{1.00}{12.00}$

Idlewild

Overweight on
baggage —

Northwest A.L. \$42.72

baggage handling

\$2.00

Dinner:

June 26. Spent morning
catching up on dictation
& various odds & ends in
office. Pierre Dansereau
in with report on his
trip to Colorado to help
dedicate the new arctic-
alpine laboratory, at
invitation of John Harr.
His talk (the central one)
went well, & P.D. very happy.
To Lights Photo, on Webster
Ave., to pick up processed
Kodachromes from
Japan trip - almost
forgot them. Also stopped
at Post Office & got 2 sheets
of new U.S. Freedom from
Hunger Stamp, with wheat.
Went to Museum to say
good bye to Yuki & others.

Yuki not in - would otherwise
have asked him to translate
title of Japanese work on
bryophyta sent by Imou-
entirely in Japanese. Saw
Milford Martin & Clark
Rogerson, however. Stopped
to see Bob Kolkebeck & to
arrange for mail to be
screened. Notes to Yuki &
Montague. Went home
about 12:30 to pack -
called Midland Taxi
to pick us up at 4:00
pm., on Pierre's recommen-
dation, as being economical
& dependable. Taxi came
promptly at 4:00, but
went by Reagan expressway
& Triborough Bridge, just
in time to catch rush

Taxi - Bronxville - Idlewild \$12.00
Cocktails = 4.00 porter 2.00

hour traffic, especially
in World's Fair area -
I would have taken
Hutchinson Parkway to
Throgs Neck Bridge &
Belt Parkway to Idlewild, &
probably caught in same
kind of traffic. To North
Western Terminal at 5:15
a 100 pounds overweight,
so shipped this part of
year as passenger -
accompanied air freight
to Anchorage - will have
to negotiate the whole
problem there to
Fairbanks & Thence to
Barrow. I just hope
that everything I need
got packed, with so
little time to put my

drinks on plane 3.00
porter in Anchorage 2.00

mind to it. Fortunately,
Dorothy had almost
everything I needed
piled up & I had much
photographic stuff stockpiled,
too. Taxi came promptly
at 4:00 - lots of traffic,
so not at airport until
almost 5:30. Had intended
to eat dinner at airport
but on checking in
discovered that dinner
was served on flight,
so went to cocktail
lounge for a drink.
On board at 6:45 - were
lucky to get front seats
in tourist section with
plenty of legroom quite by
accident, as stewardess
made a mistake.

"breakfast" in Anchorage \$4.50

(7:00)

Off on time and arrived in Anchorage at 8:30 - 6 hours time difference.

We slept on plane during the long trip and arrived in Anchorage hungry

(already early am. in New York), so ate a sort of breakfast. Off on Alaska Airlines jet for Fairbanks

at 10:30 - jet really bound for Seattle - and in FSKS at 11:30. Taxi to Travellers Inn - fortunately they were

expecting us & had held room, as I had sent

check for \$20. - when making reservation & had cleared late arrival. Beautiful

sunset - sunrise in north at midnight.

breakfast #6.00

June 27. Up at 8:00 - still
sleepy & not used to 6-hour
time difference. A dark
morning with a bit of rain
in the air from time to
time. After breakfast walked
around Fairbanks to get
our last minute shopping
done - stamps, rubber boots,
pants, Anahist spray, air-
mail envelopes, some black-
& white film just in case,
gloves for Dorothy, etc. etc -
including plastic bags,
never a sure thing at AKC.
Stopped at Lindie's & ordered
liquor and picked out a
cart load of goodies. Also
stopped at Wien's to confirm
tomorrow's flight to Barrow -
and as usual, they had

never heard of us. Fortunately,
space was available, so no
problem arose. After lunch,
while Dorothy took nap,
I went to town & got
haircut (\$3.10!) and
paid bill at Lindy's (\$288.+).
Walked around town for
exercise - lilacs and
narcissus in full bloom.
Dinner at Travellers Inn
and then saw movie put
on by Chamber of Commerce
on Alaskan tours. Then
an interesting series of
dances by 2 Eskimo couples,
quite elderly but very agile.
The old traditional Eskimo
dances but brought up to
date by improvisation in
typical Eskimo style.

June 28. Up at 6:00, to
find a dark rainy morning.

Breakfast at 7:00, then
repacked & got ready for
an 8:00 pickup by airport
limousine. Took first lot
of gear to lobby & was
told that flight was
delayed by weather conditions
at Barrow. Called Wiens at
9:15 & 10:15 & finally learned
that departure was scheduled
for 11:45, so we went to
airport. Finally off at
11:45, ^{in Fairchild} with heavy cloud
cover. Got faint glimpse
of Yukon and of tundra
N. of Brooks Range, but no
visibility for photography.
Stopped at Umiat -
apparently a regular stop

now - about 1:30. Bob Main
flying for Wren now & flying
charter flights out of Linn Co -
he flew for ARL in 1960 -
happened to be on hand & saw
us, so we had a good
reunion with him & his son
Dale - They had fixed up
living quarters in the "tower."
Off again and arrived at
Barrow at 2:40 - cold & low
ceiling. Came in along beach
as all planes do with poor
visibility. Met by Ted Humphries,
who is now the expeditor.
ARL now has jeep station wagons,
much easier to get in & out
of, especially when heavily
laden, than standard jeep -
went directly to ARL & saw
John (+ Erna), Schindler & Max

Brewer. Checked in, were assigned to lab[#] 10, then went to store + got issue clothing - parkas, etc. Talked some more with Max + John + heard details of their last year's forced landing on ice when plane was accidentally refueled with Diesel oil at Arlis II! Then were given tour of brand new animal quarters + shop. Saw 4 year-old wolves + 5 brand new ones, plus 2 wolverines. Stopped in to see Frank Pitelka and his group - Frank leaving next week. Drinks + dinner with Brewers - at Brewers - + Schindlers + Pitelka. Managed to get caught up on much news + gossip, after missing 1962 season

June 29. To lab after
breakfast at home. Unpacked
books and maps & got
lab (#10) squared away.

Got paper bags from
storeroom upstairs, then
got presses, blotters,
ventilators, newspapers
& plastic bags - now all
set for field work. In afternoon
went out on tundra behind
base, toward the gas well,
for a couple of hours. The
snow melt off was unusually
early this year & so the
tundra seems dryer than
usual. Talked to Max Brewer
about getting into the field -
we may go to Meade River
on Monday. Must do a lot of
writing of year at home, too.

June 30 (Sunday). Slept
until 8:00, then a leisurely
Sunday breakfast. Went
to lab, which was
practically deserted.

Got cameras and camera
equipment sorted and
organized - also maps
& selected maps needed
for Coal Mine and Woluck
Lake. Stayed home after
lunch - took a long nap
to remedy sleep deficit
and then read Φ BK
books submitted for
prize. Read or finished
reading & wrote reports
on books by Suggs,
Simont and Roeder. Strong
N. wind all day but rain
in evening must mean shift

July 1. Up early, typed
off reports on books for
ΦBK & got them in mail.

Packed pack sack - got
a clipboard, for maps &
paper, that needs to have
about 4 in. has sawed off.
Went home and got
gear in order & packed
in duffel bag. It's a
more and pleasant prospect
to be living in Waingona
instead of a tent & means
carrying much less stuff.

Learned, finally, that
we would probably leave
before 2:30, so settled down
to a relaxed lunch &
finished packing about
1:30, when I was still reading.
The truck came for our gear.

& I went down to lab
to get pack sack, presses
etc. on to the truck for
packing on plane. Truck
(Ted Humphrey) picked me
up at lab, then home
for borrowing & last minute
items. Off at 2:04 in
Cessna 180 on wheels,
with Mal Staehli as pilot.
He got lost, so we saw
lots of tundra - and
canyon - before 3:00,
when we finally arrived.
Air strip only a weaver
trail bulldozed out of
tundra - but sandy.
Worngan a Tar-paper
shack on pile, with lots
of loose pieces floating
and vibrating in strong

A short walk
W. side of the river, Alaska
west wind - Key to Wainaga
in possession of young
self elected caretaker
(E. Skimo apparently
with TBC). Made coffee
for Mel and E. Skimo,
then to get pulled.
Knock on door & Hazel
Nayakok arrived, on
a social visit! She has
2 boys & 2 girls, one boy
adopted. Her husband
working at Umiat, for
an oil company, but
should be home for the
4th. If winter is flying.
In getting water for our stream,
I looked at plants - a
reasonably rich flora -
Parrya, E. utrechensis, etc.
Our Wainaga camp - but in

July 2. Up early & after
breakfast went, with
through timber to next
c. east wing of meadow
to water, where marked
on snow water - then
one each in certain
at timber. Tundra low -
can polygonum - near
village of. few - types, of
relatively high ppt., with
cinchidion, Scrophularia,
Mussaia spp., etc., but
proportionately more acid
soil known, but with
lots of hepaticolae (or
liverworts, as they are called
in Tundra). Birds and
fungi - in middle of
morning season -
flushed 3 ptarmigan

because the fluffy yellow
+ brown young chicks.
There is no more
to be seen, then

Monday and I walked
up ~~nowhere~~ until I
is like that feeling
of my time with
I was - as as

There
then I had to

I went down to
the river to see
the water. The water
was very green,
clear, so I took

pictures of the water.
I continued to do so,
and at a time, at
4:00. The water was
clear, then I took

Navy's work can be a big
bill, but it's dangerous
work, on an inner bill,
but it's a big job. I can't
1. A report from a man
of the 1st. I have my gun here
and am accompanied by the
(that the needed today
the day) and some
people who are looking
for a big one. Fish
for dinner & excitement,
especially in the evening
when it's with the
big fish - no limit,
the fish are very big and
they are fresh or canned.
We can make the fish
a little more than 1000
if necessary, and the
management is good.

July 3. Strong wind of
last days - suddenly
still. Fog in night -
sprinkle in morning,
but not real rain
out about 8:30, with
sun trying to burn
M. rough overcast. Went
back up river - to
photograph E. T. in
on down + back up
river, with varying
heights. Collected several
in river not yet found,
including *Splanchnonotus*
+ *Desmarestia*.
First day will bring
further records in a
well-known place - old
town, where Howard
worked in 1953, and

Holmen & Mårtensson
in 1960 or 1961. Found
Fissidens in quantity -
had been looking for
it. Habitats not right
for many things - have
not seen Lycopodium, for
example. Still have not
collected Carex, in
great abundance and
P. ilopidum, common
here (as at Barro Colorado).
Joe & Kip, the "caretakers,"
came to call - and
stay. Found in
evening. It had been in
the morning for a long time.
Worked in evening at Barro Colorado
by the lake and at the
lake. Not HIL & not Mårtensson -
perhaps, as they could
not find the lake.

July 4. Rained all night
& all day - dark & cold,
a little wind, at least
compared to first few days
here. Stayed home &
sorted & recorded specimens
collected during last 2
days, and looking for
them in newspapers.
Some 100 collections and
nearly as many species -
maybe more if admixtures
are counted. Although we
have no wall, find
that we will heat
up remarkably well for
long enough to warm the
house with our of space,
wood-burn, etc. At 4:00
heavy snow began &
everything white by 7:00.

Joe Akpik came in about 6:00 and spent a couple of hours sitting with us - but without much communication. However, we did learn that his name means "Salmon berry" - Rubus Chamaemorus.

Also found that coal mine operates primarily in winter, in a vein 8-10 feet thick. Coal blasted loose, then taken to twist bucket by wheelbarrow. Coal taken to houses & carts for fuel - supplies. In a night, at rough or equal distance, has its own coal mine. Snow finally changed to sleet - 4 or 5 inches during night.

July 5. A cold, dark, windy
morning. Much of snow
had evaporated, but still
several inches thick in
depressions & whole
landscape still white.
Because low-lying junipers
were still snow-laden, I
took care along base of hill
to avoid R. & in places
in it, to the east side.
Got many things, not
previously seen & that might
otherwise have been over-
looked. Back to Loring at
2:30 & Worthing had no
more than gotten a pair
of parakeets on the stove
than we heard a plane -
Max Strickli's the ARL 180 -
which was met by us and

most of the Eskimos in
the village, who then came
in to watch us pack.

Having distributed the
part of the food among
the 2 families & also
gave them the park traps
on the promise that the
furs would be returned.

Off about 2:30 & no snow
in air than I remembered
leaving the rifle, intended
for Nuluk Lake, well hidden
in the wagon. So, back
to the country road airstrip
& got gun. Mal flies as
low as Zimmerman & has
as gay a temperament.

Suggested that we go out to
look & see the monument,
which we did, thence back

along the beach, buzzing
every tent & skimming along
the bay. Met by Ted
it was flying, who took us
home. After lunch went
to work to check in with
Mark & John - they came
in for drinks & John
then got Tina, who is
leaving for several weeks
in Mexico, tomorrow. First
lot of mail in from Knoxville
& Garden. Also the batch
of 4 BK books I had wanted
hot drier installed in lab
and press that Corbett,
and made up over the
week. Will have to post final
writing today's collections
until tomorrow.

July 6. Up early & spent
most of day sorting,
numbering & inventorying
yesterday's collections
& getting them over the
boat. At 12:00 went out to
the airport to see Erna
Schindler off for Mexico. Met
Phil Leach, Univ. Wash.,
who had arrived on the 4th.
Also met several of the bol-
ivianates, John Tedrow and
a CRELL group, Johnson, a
plant ecologist, Grant Walton
and Bob Leachman. Also a
young recorder going
back to Birmingham from U.
Virginia, with some mosses
for identification. Managed
to identify mosses left
back here by Kurt Bohnebeck.

Max & John in for drinks,
John stayed for dinner,
then we all went to Barnow
Blage to watch baseball
game, boat races and
tag. of war, all postponed
on July 4 because of
terrible weather that day.

Home about midnight,
then invited in for a
night cap by our neighbors
on the other end of the
Quarset, Dave and Fran
Mullen - he working on
his doctorate with Frank
Kittaka, on the physiology
of lemmings. Earlier, Max
had told us that hibernians
were almost immune to
strychnine, so Folk was
worried about relaxing his for
experimental work!

July 7 (Sunday). Slept
until 9:30, thanks to
black out shutter on bedroom
window. Went to lab,
changed drier in one
examination piece,
finished identifications of
insects brought in by
others. Had long talk
with ^{Phil} Johnson, who took
Ph. D. with Dwight Billings,
& who knows Pierre Danneau
well - an interesting &
bright boy not assumed
to be a naturalist in this
most other age. Spent pm.

on correspondence letters
to Kutscheck, Danneau,
Ewin, Kickett & condoned +
note to Grace Vietz. Mullens
over for drinks after dinner.

July 8. With dinner
on all night, a sort
of line from one washer
dry. Put the rest on
the heater and they were
dry before lunch. Talked
to Max + John - float
plane due in any
moment + we should
depart by 12:00, so
went home + finished
packing. Then heard that
plane was having manifold
repairs + would be delayed,
so back to the lab to wait.
Max plans to leave with
Wolucke Lake just a week,
then back to Barrow a
complete or - day to day,
my - running before going
to Banks Island. He is

sending a reconnaissance
trip out tomorrow to
test landing strip & to
see if Maher wants to
be moved. If K4L can't
land, then we will have
to go by 180, a much longer
time en route. Today's
trip will take 2 flights,
so Max is sending an outboard
motor for the rowboat already
there.

Off, finally, at 1:20 and
at Nuluck Lake at 3:00, after
a fine flight in good weather.
Nuluck Lake the counterpart
of Liberator Lake and Smith
Lakes - at the very front
of the Brooks Range, with
mountains immediately
behind, only closer than

other areas visited. The
new housing very comfortable
with new furniture & propane
stove for cooking, plus
a space heater -- but I
didn't know how to operate
them. However, a good new
Coleman stove was on
hand, so we used that.
Spent late afternoon and
evening making collections
of relatively common
mosses along lake shore.
Much bear dung & cabin
equipped with nail
slatted covers over doors
& windows. Second flight
with remainder of year
here, arrived, so spent
the night with one car
open. A fine place!

July 9. Dorothy's birthday
but nothing in hand after
blowout in Tokyo - also here
at Base out of everything
for gifts. Up early, even
after bad night of listening
for plane for both of us &
out to mountain behind
Isonigawa - Good collecting,
with *Kudaka prolifera*, *Seaponia*
Simmonsii, *Trillaria*,
Ternstroemia, *Macrodiplazium*,
Cephaelis alpestris, *Monarda*,
Androsace, *Mesopitella*,
peculiar "fissuriform" of
silt beds, etc. Home for
lunch because of portable
nature of flight plane.
Stayed home all afternoon
until at 4:30, on lunch
plane - arriving. Baby

Fisher arrived in float-
plane with truck
scheduled for another camp.

He brought many provisions, plus
more food, plus outboard
motor, oil, etc. and I
exchanged several gray
suits of "off" because of
unpleasant shade of
mossy nitrous. We gave
him some chocolate that
we had been drinking to him
and heard plans & he showed
us how to use propane
stove - also how to take
fuel propane tank from
empty one and how to change
stoves. Bobby also brought
mail from Bonnie - including
her 16 day cards for
Bobby!

June 10. Planned a long trip because not yet well started - spent so much of yesterday waiting for plane. Went up stream to "twin" mountains, visited eastern one to see old mine (?) & then to high ridge back of them; to be seen from camp. Tracks of thousands of caribou everywhere, especially south of twin ridges. Found much of interest, including *Tachystomum cuspidatissimum*, *Lidymodon giganteus*, *Maesia tigrina*, *Mniun Andromedum*, *Lepidodermis*, an odd hepatic, *Plectroderma*?, that seemed to exist mostly as bare stems with only

rudimentary leaves, but
suddenly producing an
apical tuft of pinnules.
Much else of interest. Also
photographed many higher
plants. From ridge, went
east to swampy ridge
connecting to back of
eastern high ridge close
to camp. Up south side
& over top just at E. end
of Wotuck Lake. Down on
an angle for 1/2 mile, then
across wet tundra to camp.
Mosquitoes too ferocious &
I too thirsty after 6 hours
of work to do much collecting
on way down - will save two
for shorter danger, directly
west of camp. Did see much
Rabbits, however, & collected Lepus

June 11. Rained all night -
ranging from real rain to
sprinkle to mist. Only
a sprinkle when we got
up, but still dark and
uniformly overcast. This
will be a good morning, at
least, to sort the specimens
already collected. Got through
material collected July 8 &
9 & out in rain to western
"twin peak" behind camp.
Up the western end, in a
ravine with stream, then up
back wall to rock pile on
top. Crest relatively smooth,
with a sharp drop off on
north and a rounded south
slope with very conspicuous
whiplike stripes. Walked
whole length of crest & found

that someone had installed
a vertical pipe in rocks at
longest part of E. end of ridge. ^{but not a benchmark}
Then down & back to camp
via E. end, north slope. Out
2 1/2 hours & rather wet, in
spite of rain-shedding quality
of amarak. Picked up several
things not yet collected &
got a lot of *Frullania*, in
the hope of finding more
F. sinensis, collected more or
less by accident at Diet's road
in 1951. Stormy evening so
dark that I located drum of white
gas on beach, filled empty
Jerry can in Wainigan, assembled
& filled new Coleman lantern &
got it going. With propane stove,
not much need for white gas
unless we get outboard going.

July 12. Another wet
rainy night and dark
foggy morning. After breakfast,
settled down & sorted &
recorded collections made
July 10 & 11 & Dorothy put them
in papers. We finally finished
the tedious job at 4:30 p.m.
& went out to visit old
mine & climbed western ridge
from below - a visit to
our garden & the first
impression. I had seen in this
area. It went from back woods
area, & less steep than
from north. By the time we
got to the top, the walking
was down below some thin
tops, where had only fragments,
loss of camp, lake, surrounding
country, etc. In good weather,

22. The excellent view of
the surrounding mountains from
this ridge - broad strong &
level on top - must be snow
at higher altitudes. Back
to camp after 6:00, cold
at camp, but back blood
circulating again after long
day's work on specimens!
Picked up a few things not
yet in hand as primary
collections, but only as ad-
ditions, as I app. of
the continent & some
other things. Tomorrow,
whether or not, will go over
the ridges west of high
mountain behind camp,
in hope of finding some of
the driftwood species. Cold
night!

July 13. Morning cold, dark
windy & foggy, with occasional
blades of misty rain. However,
overcast is finally in discrete
clouds & not continuous,
with sun visible in thinner
spots. Out at 9:00, & went
west from "West ridge" behind
camp on ridges parallel to
it - and some at right
angles. Found several good
patches of stabilized forest
No. 2, both wet & dry, with
bitterbrush, sagebrush, *Turkey*
bravicornis, *Platanus*,
Zinnia, etc. Continued west to
Storm Creek & got *Bux-*
tonia and *Dicksonia*
in river flats - but did not
find *Aloua*, usually common
in such places. Day gradually

got brighter as clouds thinned
& scattered, but still cold &
windy. Found excellent
belking on Caribou trail
just south of ridge & saw
one young caribou, who
started running when he
saw me, even though upwind -
with a very strong & cold wind,
too. Half expected to hear
plane coming in today because
of a remark Max made about
a "social call," but with ice
breaker in at Barrow & with
planes undoubtedly behind
schedule because of bad
weather, Max is well tied up.
Will go out on "east ridge"
tomorrow & to Pelly Fork of
Nuka River (USGS map, 1956 Ed.
Wishauk Mountain Quadrangle).

July 14 (Sunday). Cold
night, and another foggy,
rainy, cold and windy
morning. Finally out at
10:00, working on the north
slope of the "east ridge"
behind camp. Worked up
near the summit, then
down to about half way,
to intersect ridge running
east nearly to the Pelly
Bore of the Aluka River, then
across ^{logs} tundra before reaching
river. River narrow but
fast, what with all the recent
rain. Got a *Utygrobys* from
our works in the river. Found
first *Dodecatheon* seen in
area on banks. Walked down
river a half mile or so, then
west to isolated ridge near

[illegible]

July 18. Got up about 3:00
am. to shut off stove - wind
had died down & morning
was too warm - looked out
at once - saw large wolf
was wandering around among
rains, etc. Called Dorothy &
saw it, too - it seemed
quite unperturbed by us.
If through the curtains was still
very low, we would see some
light in north bedroom. Two
more faint mouths of holes,
but seen which the outlet of
Black Lake runs. Found
a fresh one at that end of
under house! Bob then found
prints of last night's game.
Told me that Beaver - the
plain had been covered
weather during our stormy night.

Up at 9:00 am. -- still foggy,
cold, misting & the wind
to wind back again. The
morning so low that no plane
could come in -- right on the
fog, wind for today not a bit
better. I even see across the
river. But before 10:30; went
up small stream that flows
through camp & farm. In
the morning it is the water
and come back. In the
afternoon, specializing
in the children and children.
I am glad to find B. in
the children's & several others.
But no more from the children
before 1:30 -- but 4-5. I
will collect them. Half expected to
be picked up, but fog settled in
right to the ground.

July 16. Up early - still some
fog but am trying to break
through. Out at 8:30 to "west
ridge" of Twin mountains just
S. of camp & worked on
north face slowly and
carefully, since main inventory
job is completed. Found *Chees*
with fruit, a *Tayloria* and
Haminia, all of interest.
Sun finally came out, but
fog expressed by heavy
mist and occasional
drizzle. In for lunch just
after 2:00 & to avoid heavy
rain I am postponing
work. After lunch took
a long walk up the hill
between
camps & began to pack. Heard
pigeons about 6:00 - Bob
Hartley had been taking

a party (McNamara) to a lake
above Lemiat, to descend by
boat, and stopped in to see
it. We were ready to go
because his plane was
empty and he was in the
vicinity - a most humane
attitude, as otherwise it would
be at least another day before
we could be picked up. Finished
packing, took gear to plane,
turned off propane tank, put
invisible bear-and-cubhouse
front shutters back in window
& door (& managed to snag my
hand in process) and off just
after 7:00. Landed at Barrow in fog
shortly after 9:00 - met by Joe & Ted
Humphrey. Home for a quick
supper, then put 2 big boxes
of last specimens over the fire

July 17. Up early & got last batch of wet specimens in press & over the heater - all material better than usual because collected in rain. Also sorted yesterday's collections & got them in press, too, so all material now under control. Dorothy spent morning on accounts & bills and I also paid a couple of bills & got Random House check off to bank. Max Brewer & John Schindler stopped by for a drink and ended up by staying for dinner - then their two quails, the administration of the school at Barron village, with whom they were going to play pinochle, stopped in for the evening, too. Wait to lab late to him

July 18. Spent whole day
getting specimens dry,
& still had to leave 2
presses on heater overnight.
Collecting in rain made
this the wettest lot of
material in a long time.
Had long letter from Pierre
Dumarsais on several
topics & answered it. Went
to store at noon & bought
a couple of packages of air-
mail envelopes - or took
care of present from the lab
which I came at Nuluck Lake.
The strong east wind we
had at Nuluck blew the ice
out to sea - very early in
the season. Had long talk
with Dave Mullen about Banks I.
He is pessimistic about moose.

July 19. Most of specimens
left on heater overnight were
dry - the rest I dried by
exposing to air or by laying
them on the heater. Letter
from Grace Lutz - answered.
Also typed up reports on
6 books read for the QBK
committee. 1 letter to
secretary suggesting that
this is the end. I am hoping
that a book or so isn't floating
around in a bush place or
field camp. Talked to Hank
Chandler, who also went to Banks
I., & who brought back some
news, so it isn't as much
of a chance to see Mutton through it.
Max Brown in - we will go to
Capetown tomorrow, then
to Banks I. via Inuvik, Canada.

July 20. Last dozen sheets
of specimens finally dry.
Wrapped all dry material
from Meade River & Noluck
Lake in 4 big bundles - all
set to pack and ship when
the time comes. Letters to
Schuster & Tilley concerning
public. Very heavy fog,
right on ground, so thick
that eclipse of sun could
not be seen most of time,
and when it did appear, no
filter was needed. Saw Max
Brewer about today's flight,
if any & he predicted about
3:00, so home to finish
packing & for lunch. After
lunch had long conference
with Brewer & Schindler - ARL
has possibility of getting

intermediate DTH line
stations from Air Force,
as reception of major
stations has been greatly
increased. This would mean
the acquisition of 7-9 U.S.
facilities and 3-4 Canadian
ones. My reaction was to
accept anything available
and worry about what to
do with it later. To airport
shortly after 3:00 and finally
off at 3:55 - delayed because
Brian's Fairchild and C-46
were in process of landing
after long delay above fog.
Fog extended only a few miles
south of Barrow; rest of trip
in clear, so I took several
tundra photographs, mostly
flooded streams and drainage

features in general. Murphy
cut in just west of Beaufort,
but east of Cape Sabine,
& thence southwest, so
we missed the cliffs of
Cape Lisburne and their
terrible downdrift, experi-
enced two years ago with
Percott & Hultén. Arrived
Cape Thompson at 6:30
to find that it was 5:30
camp time - also Kotzebue
& Nome. Met by Harvey L. Strong,
the camp manager & several
others. An English couple, ^{Southwale} he
working on invertebrates, went
back with Murphy. Dr. ^{John} Parker
from Univ. of Alberta, here
working on crypto taxonomy.
Dorothy and I went out for
3 hours to collect & followed by

(Sunday)

July 21. Rain in night & dark morning. We got up early & made our own breakfast before others got up. I was in field about 8:30 & came in for lunch about 1:00 - to find that lunch was at 1:00. Doudney and I had a sandwich & Harry took us by truck out to the new airstrip, reasonably close to mountains SE of camp. A persistent rain developed, so we came in a bit early - at 5:15 - somewhat cheap. The side valley we entered had a resident bear so we were supposed to carry a rifle, but when I talked, Harry Strong gave me a

muscle bunch, which would
probably be more effective.
The mountains south of the
Oyotunke consist of loose
shales, very well and storable,
but I had to see them to be
sure. Little is as much as in
many places. In this line
mountains are small. The
landscape, however, here is bad,
with only one or two in
operation, so much of my
work will have to be on foot.
Big turkey hounds are all
too much. By next morning
starting again tomorrow collections
according to plan - Not they
get them into papers. Use
these data as far as Mr.
Parker who is counting specimens
of local plants.

July 22. Out in morning
with Dorothy to big ridge NW
of camp, up ridge nearly
to top then along ridge for
a couple of miles & back
via deep gorge & creek that
joins Ogotoruk Creek. Sun
not really out, although a
much better day than yester-
day, so took a couple of
photographs, esp. of *Dodecatheon*
and a magenta colored
Castilleja. Back for lunch,
then out to same area we
visited Saturday night, to
photograph plants, with
improved weather. Finally
found our friendly fox who
was sleeping in willows & who
yawned & scratched at a
distance of 20 feet, until

finally leaving us and
climbing mountain. Got
a series with telephoto - at
least if exposure is ok.
ARK plane came in while
we were on mountain side,
with John Schindler, as we
found out later on return.
Spent quite a lot of time
photographing plants and
in looking for - and
finding - the curious turgid
moss (*Myurocladia*? / found
as a few strands Saturday
night. Found a reasonably
fine colony & collected
enough for *exsiccati*. Max
Brewer arrived in evening -
he and John assigned to
beds in our community room,
but didn't come in until 4:00 am.

July 23. Everyone up early because barge had arrived to pick up cargo for Kamov and to deliver gasoline for this camp. On Braveris urging, Dorothy and I were finally able to borrow a vessel - although there are 6 or 7 around, only a couple of them work well. Went up Ogolovik Creek about 5 miles, then left up a creek coming in from the north & over the tundra on an old beaver trail almost to the Kudpak River - to which I had hoped to get but thought it was too far because of our late start, but saw from the plane the next day that we were only a mile or two away and that the cut banks we could on

the barge to our left (west) were really on the other side of the river. However we got back to camp in time to see John & Max before they left & to learn that the prospects for ARL acquiring two intermediate DTL line stations looked very good the Air Force is willing if the Navy agrees - and Max apparently has Navy agreement in hand. Not many collections today. Got *Blasia* on banks of a small stream & finding *Psilopilum* - common but sterile on the coast, insofar as I saw it. Very quiet at dinner with Max, John & the barge crew gone, so Harry Strong served a couple of vodkas to survivors.

July 24. Rained hard in
night, so up & out early. Had
to get breakfast for us, as
whole camp was sleeping
after dinner & day of
getting ready for & waiting the
large tinned Herberta, Aloina
& several other things not yet
collected - but no Ascidiata,
which turned up last time.
Worked carefully in shale &
lifted first coils seaward from
NW end of ^{old} runway, behind
camp, through lunch hour. Fog
bright on ground much of time
& so none of us expected a
plane today, after all. However,
heard plane & rushed back
to camp, arriving about 3:10
just after plane had landed
& was unloading food & a

new colored work, very verdine
Quickly finished packing,
a press from Kate, said
of love to Packer, Harry
It was 9 others and 1/2 at
4:00 - 2:00 Barro time.
I took a cover north for
my - 1. surface + good all
the way to Barro except
a few small scattered
stones - very magnificent
the rain had. Arrived
Barro in fact sun at 7:40
+ came not much after 1:30.
Went on to Kate after delivering
battery + gear at home, changed
press from hot rollers to dry
compressors + got it over water.
Some mail for us in there - saw
Max briefly, then home for
food - too tired to sort specimens.

July 28. Another bright &
sunny day after a long siege
of fog. Some specimens
already dry, others enough
so to hang out in dry air &
back to finish up. Sorted bags
of stuff collected during last
- days, made records &
got into press. Spent whole
day on specimens, in one
form or another. Got
considerable information on
Inuvik from Hank Little -
apparently quite a place &
bent new, is one place at least,
which is being taken over by
the Mackenzie. Max & Jim
in for minutes, ~~then~~ at
once by Bill & Norma
otherwise - no time for
dinner!

July 26. Great bulk of
specimens now dry - will
leave in box on the dryer if
necessary, for a day or so.
Phil Johnson will pull the
plates. Letters from Pierre
Desrochers & Grace Dietz -
stationary, none yesterday
but no messages. Wrote
the Airlines for recon-
firmation of our flight Aug. 8.
Went down to Northwest
Airlines - also asked Northwest
to make hotel reservation in
Anchorage. Ted Humphrey
came to lab at 12:00 to say
that our flight was developing.
So home for lunch & to pack.
Wrote note to Max Brewer
about need to return to Barrow
from Banks Island in time

to dry specimens & pack gear
before departing on the 8th.
Picked up at 2:00 and off
at 2:15 in 180 on wheels, in
rain. Weather on and off -
very bad in Barter Island
area, with fog, rain & low
ceiling, but began to clear
just after Herschel Island.
Arrived at Inuvik at 7:00 -
4 1/2 hours flying time
instead of 5 hours because of
strong tail wind - but 9:00 pm.
at Inuvik. Many photos of
Mackenzie delta & vegetation
cycles. Inuvik brand new &
very colorful. We were lucky in
getting room in Mackenzie Hotel,
the only one. Walked around
town after dinner for exercise -
an interesting place, on dry land.

July 27. A dark rainy morning with low ceiling - we slept badly because of humming bed & noisy town, especially because we are over the bar! Up fairly early, to meet Bob Murphy for breakfast at 8:00. He had still not been able to find customs man to sign the papers, so we went to the laundry, run by the customs man, but it wasn't yet open. Tried a second time, but laundry still closed. Finally got a taxi for the ride just, & found that the driver knew where the customs man lived, so we stopped at his house & Bob finally got a signed entry.

Out to the air port finally
about 10:00, but in a very
heavy rain. We waited until
the squall passed, then
the 10-gunned up & we took
off at about 11:00 & arrived
at Aklavik at 11:30. Met by
friendly young village manager
who gave Dordney & Bob much
information about Aklavik &
the transfer of many govern-
ment activities to the new town
of Inuvik. I promised to be
back at home in 2 hours
and headed for the house -
up and down, down the river.
Not a terribly rich place, but
some things of interest,
especially Bay of the sea &
several Polaris & commercial
Bays. On the way, home

I was met by Dr. Krizina
of the Univ. B.C., with his
15-year old son & two students
from UBC - They are doing
anatomical work in the
adjacent Richardson Mts -
before I could see much
to work. Since he will be at
the AIB meetings, I didn't
spend too much time with him,
so we got off before 2:00 &
were back at the Inn
at about 3:00 & back in
town about 3:30, in time to
catch the liquor store open at
its highly restrictive hours.
Then to the Hudson's Bay
Store to see if I could
make time, much already
being by AKL people
going there. We had

2 large pieces - a bit
expensive (\$60. + \$10. / +
I got 3 pieces for machine
at 4th, after talking the
man into accepting
his share. We will get some
more things on Monday,
for the kids. The HB store
has an amazingly cheap
lot of soap, towels & other
pieces - one just two with
kids - decided not to go back
to store because of
time, back in it up to
40 mph. - a real headache,
the bus stop, and the fact
just around the corner
is a disaster, the going about
the Bangkok Island trip &
other things - But all we
to take us in that / 10!

July 28 (Sunday). Slept in -
and then dark morning, so
we combined lunch & breakfast
about 11:30. (Bob Murphy up
at noon & decided to go to
Barrow, weather or no. So
he left about 2:00, with our
megastones to leave in our
truck, as well as the stuff
for Linné. Bob & I
and I first walked down
to the water front, then south
of town on the air port road
& I did some collecting in
a rather dull sparse forest.
Then back through town
& out a bit on the road
going north. Then home to
the hotel, took bath &
relaxed - not a very
productive day.

July 29. Rain all night &
still raining in morning, so
slept a bit later than usual.
Clouds finally became distig.
inquisible & rain occasional,
so out about 10:30 on road
to air port & over 2 ridges
to east, to make transects
of muskeg, swamps, lake
shore, birch & spruce forest
and willow & alder scrub.
Got very wet from fighting
wet brush - willows not
only terrible for being willows
but all half dead wood must
have been a very dry season.
Rain resumed & became sleet
so started home & back at 4:00,
so wet & cold that I took a hot
bath to thaw. No sign of
R4D from Barrow. Dorothy got
our shopping done.

July 30. A dark morning
but no rain - just mist. Out
on road north of town & looked
at large one that had been
bulldozed, presumably for an
eventual gravel pit, as done
south of Inuvik. Finally got
Alvina, inevitable with this silt.
Then down to river, or at least
the channel used by boats
coming to Inuvik, near large
oil tank farm. Willows wet but
not as bad as yesterday & very
glad I went in, in spite of much
reluctance, because a brand new
moss to me - *Myrinia*? - was
growing in abundance on silt &
over bases of willows, where
inundated in flood times. Got
enough, with sporophytes, for
exsiccati. Back to hotel about

4:00 & put new moss in papers
at once, to avoid having nothing
but adobe bricks in plastic
bags. Had almost given up
hope of arrival of plane when
about 9:30 the hotel manager
came up to tell us that the
group had arrived, but that
for lack of hotel space, they
were being quartered in the
Roman Catholic hostel for
students. With strong north wind,
the plane evidently had
swung around to S. end of
runway & did not go over
Inuvik. Murphy & Alderfer
with Dick Holmes & Sapp Fieldt
back about 10:00, so we went
to pub & drank beer until
about 12:30 - closing time.

July 31. Overlept + late for
breakfast. Quickly packed stuff
+ off to airport about 10:00, but
still had to gas. Off at 11:10 in
K4D, with Fred Carpenter, the
"chief" of Banks Island, his
wife and 3 (of 13) children,
plus a lot of his freight. Soon
over the heavy overcast +
cruising over Sachs Harbour
on way about 1:30. Finally
landed on new strip under
construction + met by Eric
Dawson, engineer in charge of
construction, in a Bombardier,
with the K.C. priest + several
others. Very cold - perhaps 35° or a
strong west wind with misty rain -
good Barrow weather! Very good
lunch in construction crew mess +
out into field at 2:00 with

promise of being back in 4
hours. Went down to lake just
N of camp & runway & eventually
went around lake. Wind extremely
cold when working into it, but
bearable when at back - we
should have brought our parkas.
Lake shore quite rich - wet fen
vegetation, but tundra itself very
dry in spite of mist, consisting
of a dry dusty silt in clods.
Got *Specknum vacuolatum* & a
peculiar *Specknuaceous* moss -
Hylocomium, but not typical! - in
quantity, and enough *Cinclidium*
latifolium for exsiccati. Back to
camp at 6:00 with large plastic
bag & 2 smaller ones full, for
sorting later. Harrison had
taken Dorothy & pilots on tour
of village, down on seashore

perhaps 500 feet below ridge with
strip, construction camp, weather
station, etc., & to meet some of
people in village. At dinner,
pilots decided that weather was
too bad to take a chance on
Bernard River tonight, with the
further chance of not being
able to land again at Sachs
Harbour, which would mean
going back to Inuvik & starting
all over again. So, Harrison gave
up his snug little room with
double decker to Dorothy & me,
Murphy & Alder for got space in
bunkhouse, while Dick & I nap
stayed in plane. Weather alternately
mist right to ground & relatively
clear. Fred Carpenter had left
been on plane for present - spent very
pleasant evening talking to men.

August 1. Up room after 6:00
& breakfast at 6:30. Weather dark
but higher ceiling than yesterday.
However, during breakfast, fog
came back in, although with
some visibility, so Murphy
decided to try Bernard River.
Took off at 8:00, with such
poor visibility, went up west
ward of Banks I. at 200-300 ft.
alt., instead of overland, to be
sure of reaching right river.
Weather alternately worse & better -
but essentially better than Sachs
Harbour. Before take off, gave
Davison 2 rolls of Kodachrome
as slight recompense for his
courtesy & hospitality - with so
much bad weather this summer
I am long on film. Reached
Bernard River mouth just before

9:00 & turned east to follow valley.
After several passes over sand
& gravel bar that serves as
runway, Bob Murphy made
a very gentle touchdown &
landing - rough only after we were
almost stopped and hit some
small washes. Plane needed
almost flying speed to taxi back
to beach near tents. I was out
about 9:30 in swales, low center
polygons & lakes behind camp - to
the north, with Dorothy. Area is
surprisingly rich, especially after
pessimistic reports by Mullen, who
called it a "desert." The mosses
show an area of high pH, and
Jaap made pH analyses from a
half dozen lakes - all 8.4 or 8.5.
This explains total lack of Sphagnum.
However, I don't understand not

Seeing *Hylorhynchium* and
Rhytidium - or *Fissidens* or
Mnium orthorhynchum today.
Got several things in quantity,
for exsiccati, esp. *Trichostomum*
crispidatissimum, *Didymodon*
rufus (?), *Aulacomnium acumin-*
atum, *Bryum Wrightii* & *B. sp.*,
common on lemming burrows
& runways. Also got much
Hypnum, *Splachnum vasculosum*
and a small unknown

Splachnum collected previously
at Drifwood & elsewhere -
perhaps only a reduced form of
S. vasculosum, but needs
study. In briefly for lunch, then
back to dry silt exposures, which
are not very productive. In soon
after 6:00, with 3 large peck
bags full - after 2 in the

morning. Bill Hale is assistant
set up our tent for us, so we
got settled before dinner, which
had to be in 3 sections of 3, since
plates, etc., had not been con-
vnt for us by HRL, in spite
of large amounts of food. I
examined hotel camp, etc. &
learned gas line from
phone so we could have
hot water in morning for
coffee & to wash, and thereby
not bother the camp, which
arrives late. Weather permitting,
we will spend a half day
tomorrow flying over the
country north of here, to see
about oxen and to find a
winter camp site for future seasons -
this one selected more or less by
chance - only 3 lemmings all season!

August 2. Up at 6:45, fixed
coffee & out soon after 7:00,
before rest of camp was
stirring. Collecting good,
although weather much
colder - 30° during night,
Bill Maher reported. In for
lunch just after 12:00 because
although weather wasn't too
good, it showed no signs of
improving. ...
... get our reconnaissance
flight over. Off at 1:30, but
to get an extra bit of runway
for take off on gravel beach,
pilot got plane too close
to river & wheels went
through gravel, up to hubs,
beyond power of engine.
So we dug wheels out, but
left wheel in deeper & tended

to take plane closer to river.
Finally got some more cloth wire
a wire that - after 5-6 tries,
with perhaps 10 feet of advance,
finally, finally put full force
on right engine, pulled plane
around and struggled it onto
better ground. Finally off again
at 2:45, without trouble. Went
straight north to Cape on north
end of Banks Island, seeing
several musk oxen & caribou on
way. Flew along coast to ^{Castell} Bay,
then inland some distance
& back to coast on ^{Murray} ~~Castell~~ Bay,
^{Cape Falcon Bluff}
thence west nearly to eastern
extremity. We turned south &
flew to lake district, somewhat
southeast of our camp area,
with Prince of Wales Sound and
Victoria Island in view on left.

North coast consists of mud & rock cliffs, something like the Bad Lands - clays and gravels not too well consolidated, with almost no vegetation. Inland north of coast is also of relatively soft rocks, clays & gravels, with few outcrops or real rock visible. Whole effect is of very dry area, with splendid barren of plants, and with very conspicuous patterned ground - polygons and soil streams on hillside. Back at 6:45 after just 3 hours in air - walked out to bluffs along river a mile or so from camp & got *Stegania*. A good day, with much *Urtica dioica* & *Fernaria prostrata* plus some other fill-ins. Snow in the air at 10:30.

August 3. Up early & in field soon
after 7:00. Got enough more
Meesea uliginosa for distribution &
a few other things. In before 8:30,
packed, folded beds, tied up
sleeping bags, air mattresses, etc.,
ate breakfast & got gear to plane
before 10:00, our agreed time
of departure. However, Maher
had to write a letter & pack some
specimens he wanted to send to
ARL, so we didn't get loaded
until 10:35 & in the air at 11:45.

Dorothy & I spent the time
picking up small black, red & green
pebbles! Flew overland directly to
Sachs Harbour, arriving at 11:45.
Stopped only long enough to open
door of plane & take mail from
Eric Davison & back in the air
again at 11:50. Weather at Sachs

Harbour good, although not sunny, but cold wind and intermittent mist gone - wish we could have had this weather for collecting. Arrived Inuvik at 2:15, but taxi just departing with personnel from another DC-3 that arrived before us, so we had to wait nearly a half hour for ride to town. Lunch at Hotel Mackenzie then Murphy's to liquor store on business for ARL and the rest of us to Hudson Bay Store to look at soapstone carvings - everyone bought something. Then back to plane after having to locate customs man in hotel bar & taking him to his house where papers were to be signed by pilot. After plane was garaged, we

Take off at 5:50 - 3.50

Barrow time for trip of
approximately 4 hours. Weather

heavy, with no visibility of
ground at flying altitude, and

cabin cold because of leaks in
door, etc. - Every one got to

Barrow almost asleep from lack
of sleep, cumulatively, but cold

cabin waked them up. My eyes
lined from 3-hour flight

yesterday, looking out sideways
at tundra going by. Arrived

Barrow at 8:00, on schedule,
but nobody out to meet me -

even though on Saturday night
the news just didn't get

through. Finally, 11:00 AM. Elderly
man out in jeep - he got me in on

time. Spent an hour or so getting

base of operations in order for working.

August 4 (Monday). Up at 7:30
Went to lab to sort masses.
By noon, was through
Tahiti and Tuvarek collections
the most critical because
collected first and kept longest,
so most apt to represent -
However, everything ok - the
Tahiti Island material kept
from being in deep freeze,
although not by intention, and
is in good shape. Got a good
start on sorting the Sachs
Harbour specimens, but too
tired to go back after dinner
and continue. Worked with
door closed and saw almost
nobody. Salomone stopped
by & was pleased with carved
soapstone figures we selected
for him in Tuvarek.

August 5. Up early - a very cold morning, below freezing. Continued sorting & recording & finished Sachs Harbour stuff by noon. Dorothy came in both morning & afternoon for a while, putting specimens in sheets. All material through Sachs Harbour put in press & over drier by 10:00 pm, and a good start made on sorting & cataloging the many large plastic bags of stuff from Bernard River. Found Urtica - a few plants - among Tetrapleura, although looked for in vain in field! Collection better than I realized in field, looking at occasional puzzlers with binoculars. Max Brewer in, full of plans for future. Cash'd check for \$200 - to be sure of getting home.

August 6. Finished sorting
and cataloging all specimens
in room, but most from Bernard
will not in papers by
him. After lunch, looked at
specimens on dryer overnight
& found them disappointingly
dried. Put many out to air-
dry & to make room for new
material in process. By 6:00
pm. had everything either in
press on the heater or else
out exposed to dry air of
room - a great relief, as
Dorothy & I had most of
day putting them in paper. I
finally found 2 spiders, not
seen in field - other things will
undoubtedly turn up. Dinner
at Brewers. A real storm -
walking home from lab was like
facing fire hose.

August 7. Up early - in spite
of turning presses late last
night, everything still damp.
By noon had everything
exposed to air, laid flat on
the heater, or actually
lined. Max Brewer wanted to
send me for a couple of hours
to a dune area near the
Mississippi River Delta; but
his wet specimens already
on hand and with dissection
scheduled for tomorrow,
I had to refuse - one of the
first times! Went to lab
after dinner & got last wet
material laid out on heater for
the night. Cliff Alderfer in - he
as laid out with a terrible cold
since return from Banks Island.
Letter to Susan Duxham on Graham's death.

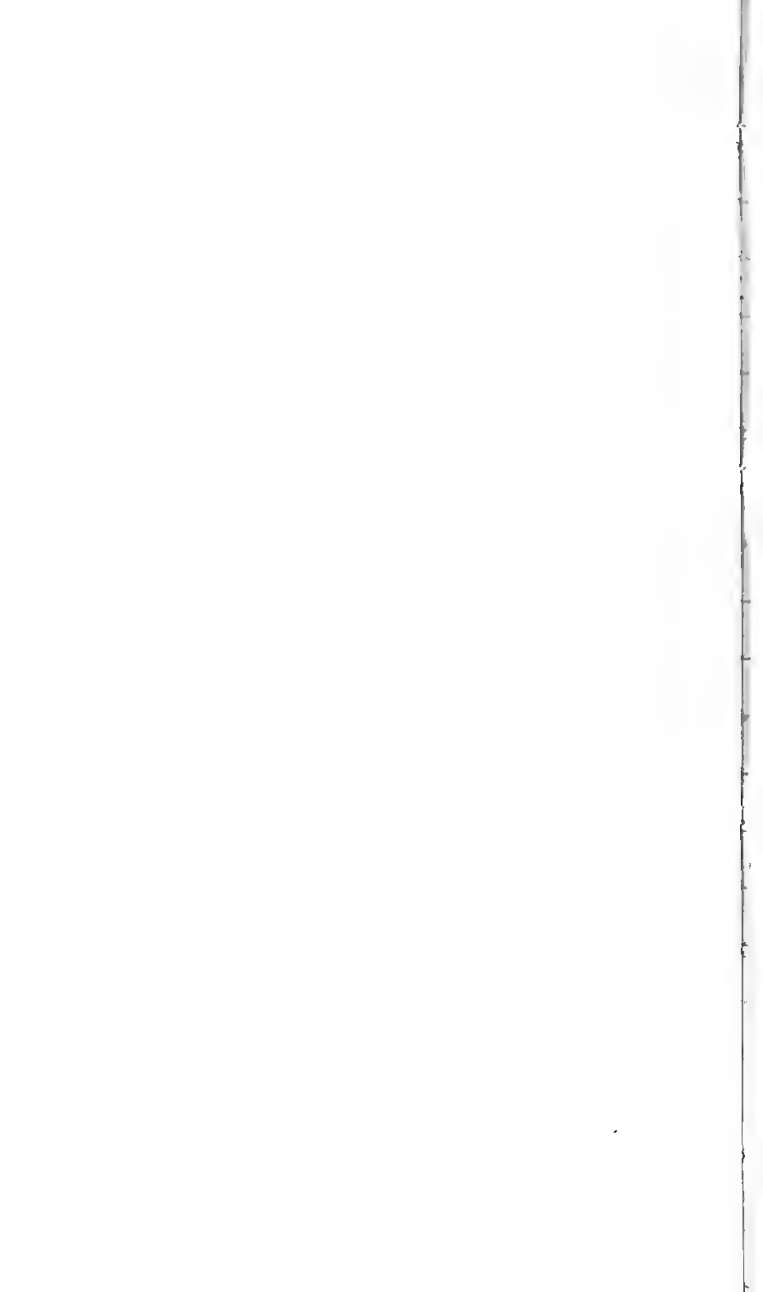
August 8. Up at 6:00 & wrapped & packed specimens. Borrowed a car, went home & picked up all some clothing to turn in plus & portions of our own stuff for shipping. Packed up cartons - 12 in all - & wrote memo to Max Brewer expressing hope that 3 cartons of under Island specimens can be sent by air - I will try to work through this material as soon as possible. Plans shown late, so last time, finally, to do June & July progress reports. Could not find carton big enough for work & so finally had to lug it along, too. A quick lunch, interrupted by the arrival of the Kalfs - Mrs. K. & the new baby had just come in on the plane - and Mary Lou & Billy Brewer, as well as Ted Humphrey,

[illegible]

August 9. Up at 8:00 &
went to Motel office to find out
if there was a place to eat
within walking distance -
just in time to receive a
call from Northwest Airlines
to call Allan Beattie. He
had called Grace Dietz and
she had gotten Northwest in
New York to locate us.
Fortunately, I had asked
Northwest in Anchorage to
make our reservations, so
they knew where to find us.
God Dorothy & we called
Allan, to discover that
Lois had pneumonia and was
much worse than we could
have known from her letter.
We went at once to the
airport and were able to

get reservations for Dowding -
to leave very soon for
Seattle by Pacific Northern
Airlines, thence to San
Francisco by Western. Also
bought S. F. Idlewild ticket,
without specific date. Then
called Alan back to tell
him of flight numbers and
to have Bill meet her.

Although we loaded at almost
the same time, my plane
waited almost an hour - some
customs problem about arrival
from Tokyo. Trip uneventful -
few passengers & I had 3 seats
to myself. Landed at Idlewild
just before 12:00 midnight - no
^{from Cross County} taxi, so had to take a regular
one & pay regular fare double -
Home about 1:30 am., Aug. 10.



BANKS ISLAND
Sachs Harbor,
Banks Island

$71^{\circ}59'N, 125^{\circ}12'W.$
WAC #61 (Amundsen Gulf)

Bernard River Camp
 $73^{\circ}25'N, 122^{\circ}44'W.$
WAC # 35 (McClure Strait)
(letter from Brewer 6/13/63)

Manning, T. H., E. O. Höhn,
H. H. Macpherson. The
birds of Banks Island.
Nat Mus. Canada Bull 143.
Biol. Ser. No. 148. pp. 1-144. 1956

Meade River P.O.

Coal Mine = Atkasuk
on World Aeronautical
Chart 63 (Brooks Range)
 $70^{\circ}29'N.$ Lat., $157^{\circ}26'W.$ Long
[Atkasuk is 3 miles north]

Noluck Lake - right on
line between World
Aeronautical Charts
63 (Brooks Range) and
64 (Utukok River)
 $68^{\circ}47'N.$ Lat., $160^{\circ}00'W.$ Long.

Point Barrow
 $71^{\circ}21'N.$, $156^{\circ}19'W.$ Long.

Inuvik $68^{\circ}21'N.$, $133^{\circ}40'W.$
See WAC 62 (Mackenzie Bay)
Aklavik $68^{\circ}13'N.$, $135^{\circ}01'W.$
See WAC 62 (Mackenzie Bay)
Cape Thompson $68^{\circ}07'N.$, $165^{\circ}55'W.$
See WAC 64 (Utukok River)

6/27/63

Expenditures in Fairbanks

pants	\$ 17.00
boots	11.05
stamps	8.00
plastic bags	5.00
wax pencils	
etc.	6.30
5 rolls film	4.50
drugs	7.50
groceries	
etc.	
gloves	5.11
underwear	4.63
film	\$ 54.00
maps	

6/20/63

